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SPACE SHUTTLE>LEHRER: Our third and last focus segment is on space and the military. Today, the government announced the next shuttle mission from Cape Canaveral will be a military mission. All of its work and purposes will be secret. Not even the five military astronauts will be permitted interviews, before, during or after their flight. It is only the first of many military flights in space planned for the 1980s. Peter Graham of public station KCET Los Angeles tells us more.

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GRAHAM: Until now, the space shuttle program has been primarily a scientific endeavor, with a sprinkling of commercial activity to help pay the bills. But that is about to change. A third of all shuttle flights through the end of the decade will be military missions. Nearly half of those will be launched from the Air Force shuttle port being built at Vandenberg Air Force Base on the central coast of California. Vandenberg was selected to house the military shuttle port for strategic reasons. Spacecraft launched here can be put into polar orbit, allowing them to survey the entire globe, including the Soviet Union. This type of orbit is not achievable by Florida-launched spacecraft, which circle the Earth around the equator. With the first launch scheduled for next fall, it is Col. Walter Yager's job to make sure the base is ready. COL. WALTER YACER (U.S. Air Force, shuttle activation task force commander): The military has a mission in space and we're going to perform that mission. And our mission in space is the same as our mission on land, and that is to provide for the national good.

GRAHAM: In sharp contrast to the civilian space program, there's a heavy shroud of secrecy surrounding the military shuttle. The Air Force won't even discuss what many experts see as its primary task.

GRAHAM: Is it fair to say that the shuttle will be used to launch observation or spy satellites that will be able to observe over the Soviet Union and other areas that the military wants to be able to observe? YAGER: I can't comment.

GRAHAM: Nearly all the information about the military space program is classified. But judging from the size and expense of the construction going on at Vandenberg, the program is significant. In all, nearly \$3 billion will be spent outfitting a military space port that rivals the Kennedy Space Center in size and sophistication. Outsiders can only speculate what it all will be used for. To some scientists, the polar orbit achievable from Vandenberg indicates that the primary purpose of missions

launched here will indeed be surveillance. That's the view of Professor Richard Kaplan, who chairs the department of aerospace engineering at the University of Southern California. PROFESSOR RICHARD KAPLAN (chairman, department of aerospace engineering, University of Southern California): The primary one and the one that the administration refers to many times is the surveillance, what is going on in the Soviet Union? What is going on from the standpoint of what you can see, the visible spectrum and the communications that are going on in the Soviet Union? I would say that the general field is intelligence, information gathering.

Kaplan calculates that observation satellites launched from Vandenberg will circle over the Soviet Union every 90 minutes. Some equipped with infrared sensors will be able to detect heat generated by nuclear reactions or missile tests. Others will listen in on long-distance voice and data communication. The most important means of observation will be photographic. KAPLAN: I have heard that you can do the theoretical calculation that from near-Earth orbits, you can resolve a beer can. Not the contents of the beer can, but the, something the size of that. Tremendous amount of detail can be seen. Typically, though, you're looking for objects of automobile size, tank size, for military applications. PRESIDENT RONALD REAGAN (March 23, 1984): What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?

GRAHAM: In light of President Reagan's so-called 'Star Wars' speech, there is little doubt that the military is considering shuttle missions going beyond placing spy satellites into orbit. The space plane's carrying capacity is much larger than conventional rockets, yet probably not big enough to handle the massive components a 'Star Wars' system would require. Still, some experts point out that it could be used to test smaller space weapons. DR. ROBERT NELSON (Southern California Federation of Concerned Scientists, NASA Jet Propulsion Laboratory scientist): Given now that whatever shuttle has evolved to and what it finally exists, if NASA prefers to call it a truck, the truck can do whatever a truck will It was a truck that killed 300 Marines in Beirut or carried the dynamite that did that. So trucks have offensive and defensive capabilities.

GRAHAM: Dr. Robert Nelson is an astronomer in the civilian space program who is critical of efforts to put weapons in space. NELSON: On one hand, by use, by its

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3

use as a way to monitor compliance with arms control treaties, it tends to help lessen anxieties and parancias that exist between the United States and the Soviet Union. But then on the other hand, that same shuttle, that same spacecraft, that same truck can be used to launch the same killer devices that conceivably can be put into orbit and used for 'Star Wars' kinds of war fighting. YAGER: The shuttle is only a transportation vehicle.

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LEHRER: Now the Pentagon, as we've heard, is understandably concerned about information about their space shuttle flights getting to the Soviet Union. How, whether it's the Soviets spying on us or the United States spying on them, how much information is available just by monitoring a space flight? GREY: Well, you can easily tell what orbit a spacecraft is in, you can tell the kinds of signals it sends out. So you can tell whether, for example, it's a communication satellite or a meteorological satellite or a reconnaissance satellite. You can't tell exactly what kind of information within that overall category the satellite is sending down or receiving. So from that point of view, classification is probably important, because it's the information itself that is most critical.

LEHRER: You can't tell what its mission is? You can't... GREY: You can tell its overall mission. For example, you can tell the difference between a communications satellite and a meteorological satellite or between a meteorological satellite and one that is designed to do reconnaissance and surveillance, simply by the way, the orbit it's in and the kind of information that's being sent from it. That is, the number of digital counts, for example, per second that come down. But you can't tell what that information contains. You can't tell what photograph of what tank, for example, a reconnaissance satellite is looking at.

LEHRER: But you can tell it's a reconnaissance satellite taking pictures of tanks, right? GREY: Not necessarily of tanks.

LEHRER: But I mean of something that's... GREY: Of looking down over the Earth and taking pictures, yes.

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4

LEHRER: So to, the scientist, for instance, in the tape, said that his view was that the main purpose of these initial space shuttle flights was going to be intelligence. Well, the Soviets would know that the minute these things took off. GREY: Not until they're actually in orbit and operating. For example, the exact time of launch of this payload coming up on Jan. 23 is not being given out in advance. Because if you know the exact time of launch and you know the trajectory of the shuttle, you can figure out where that satellite will be at any given time in advance. And that might, for example, give, say, the Soviets an opportunity to cover up some activity that might be going on. So if they find out about it, once the satellite, of course, is launched, then they will know where it's going and where it's going over. But by then, it will have done its mission or at least part of its mission. So there's a reason for not giving the exact time of launch.

LEHRER: Is it, is it tricky to monitor these things once they're up there? Is that any big deal? GREY: No, it's not a big deal at all. In fact, most of the satellite monitoring is done by an independent group in England, more or less on a hobby basis, and they report on the activities of all the satellites that are launched, both by the Soviet Union and the United States.

LEHRER: Will they do that for the American satellite? GREY: Yes, they do that.

LEHRER: Well, is there nothing the Defense Department can do to stop that? GREY: Not very much, at this point. As long as there's a satellite up there transmitting some kind of electronic information, it's detectable with fairly convenient equipment.

LEHRER: Do you think that the Defense Department is going to be successful in keeping this information that they want kept from public view? GREY: Well, they've been doing that for some time now. The specific details of the information, for example, the photographs of, that are taken by reconnaissance satellites, is kept secret at the moment. And to my knowledge, in the aerospace field, nobody without a security classification has access to those photographs.

LEHRER: From a press standpoint, nobody probably knows more about this than you do. Is it a case of the press just agreeing with the Defense Department that this kind of information should not be published or is it the fact that you don't have the information in the first place? GREY: We do not have the information in general, most of the time. Occasionally something will crop up where we do get some information and are asked not to publish it. And

in that case, we generally respect the wishes of the people who ask us. That's a very rare circumstance. For example, I, myself, don't have a security clearance. If I were to receive classified information, it would be a breach of security right there, even if no one else ever saw it. So that does not happen often.

LEHRER: One of the reporters at this news conference we saw in our tape at the beginning was very hot about all of this, saying that only the American people were going to be deprived of this information, 'cause the Soviets could get it anyhow. What is your view of that? GREY: Well, the American people will get pretty much what the Soviets get as well. As I say, it's published, the data on the satellite are published quite completely. I believe that a lot of the things that go on that are classified do not need to be classified, but that's a question of policy. Where do you draw the line? Some things certainly do need to be classified, other things do not. And the Defense Department draws the line where they deem it best suited to draw the line.

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